

2020 Colorado Academic Standards

Family and Community Guides



5th Grade

To support families, communities, and teachers in realizing the goals of the Colorado Academic Standards (CAS), this guide provides an overview of the learning expectations for preschool. This guide offers some learning experiences students may engage in at school that may also be supported at home.



The comprehensive health standards in the elementary years focus on developing individual skills to enhance physical, emotional, and social wellness and using those individual skills in family, school, and community environments. In each grade, the standards ask students to investigate healthy eating and living habits, explore positive communication strategies, examine effective decision-making, and identify ways to ensure personal and community safety.

Expectations for 5th Grade Students:

- **Physical and Personal Wellness:** Communicate personal health problems to establish and maintain personal health and wellness; describe the physical, social, and emotional changes occurring at puberty; explain the structure, function, and major parts of the human reproductive system; comprehend concepts, and identify strategies to prevent the transmission of disease; demonstrate the ability to engage in healthy eating behaviors.
- **Emotional and Social Wellness:** Analyze internal and external factors that influence mental and emotional health.
- **Prevention and Risk Management:** Access valid information about the effects of tobacco use and exposure to second-hand smoke, and prescription and over-the-counter drugs; demonstrate basic first aid and safety procedures; demonstrate behaviors that reduce the likelihood of physical fighting, violence, and bullying.

Throughout 5th Grade You May Find Students:

- Demonstrating the ability to make good decisions about healthy eating behaviors.
- Examining influences on the physical, social, and emotional changes that occur at puberty, including hormones, nutrition, and the environment.
- Utilizing interpersonal communication skills to talk about health conditions, the prevention of disease, and the importance of maintaining good health.
- Demonstrating tolerance, appreciation, and understanding of others.
- Examining research on the harmful effects of alcohol, tobacco, marijuana, and other drugs.
- Discussing bullying and violence and the emotional and physical consequences.
- Utilizing basic first aid training to facilitate a quick response in emergency situations; demonstrating the ability to call 911 and poison control dispatchers to help in an emergency situation.
- Identifying how society, media and the use of modern technology can influence mental and emotional health.



The dance standards in the elementary years focus on general dance knowledge and skills to ensure a solid foundation for more specialized dance studies. In each grade, students explore various dance forms, gain body awareness and movement skills, develop problem-solving skills through dance making, and respond to dance performances.

Expectations for 5th Grade Students:

- **Movement, Technique, and Performance (Perform/Present):** Perform accurately and express themselves through a variety of dance genres.
- **Create, Compose and Choreograph (Create):** Explore ways to compose or arrange a dance piece differently; experiment with new versions of a dance using improvisation.
- **Historical and Cultural Context (Know/Comprehend):** Compare the differences and similarities in different cultural dances; recognize various historical eras in dance.
- **Reflect, Connect, and Respond (Critique/Evaluate/Refine):** Demonstrate the ability to provide feedback by discussing dance performances; describe dance movements using specific vocabulary (plié, jazz walk, triplet, grape vine) that is consistent with the dance style.

Throughout 5th Grade You May Find Students:

- Demonstrating various dance genres with accurate rhythm, technique, and timing.
- Exploring variations of a dance phrase such as slowing it down or speeding it up.
- Improvising and creating original movement.
- Connecting dances seen or performed to certain cultures and/or traditions.
- Analyzing/evaluating personal dance performance or the performances of others using specific dance vocabulary (plié, jazz walk, triplet, grape vine).



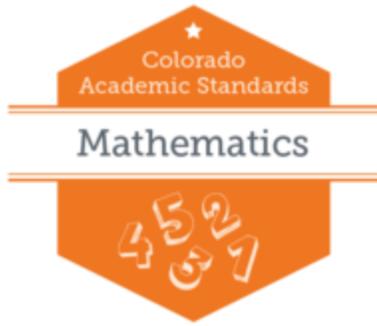
The drama and theatre arts standards in the elementary years focus on general drama knowledge/skills and basic theatre elements to ensure a solid foundation for more specialized study in later grades, including technical theatre, creative movement, improvisation, acting/writing/directing, and film studies. Students discover techniques; perform theatrical works; explore characters, plot, and themes; investigate dramatic texts; discover and describe personal theatre preferences; and explore constructive ways to reflect and respond to various dramatic works.

Expectations for 5th Grade Students:

- **Create:** Use improvisation to tell stories, express ideas, create characters, and solve problems; collaboratively explore complex ideas and common themes in dramatic works; use physical qualities to reveal a character's inner traits.
- **Perform:** Depict characters individually and as part of an ensemble through the use of movement, voice, and facial expressions; demonstrate technical and design choices for a dramatic work.
- **Critically Respond:** Synthesize and investigate how various cultures view and create dramatic works; draw conclusions or personal reactions to artistic choices made in a dramatic/theatre work; analyze the impact of character development processes in a dramatic/theatre work.

Throughout 5th Grade You May Find Students:

- Working in ensembles to determine how to adapt a story source (short story, book excerpt) into a dramatic performance (skit, scene).
- Taking on various roles for a theatre production (stage/set designer, director, actor, playwright).
- Examining the origin of a script (where it was written or who wrote it) and analyzing the different cultural parts of the story (traditions, language use, setting, etc.).
- Evaluating personal peer performances.



The mathematics standards in the elementary years focus on number and operations. Ideas from measurement and geometry help students learn about numbers and quantities. In each grade, students make sense of problems, explain their thinking, and describe their world with mathematics.

Expectations for 5th Grade Students:

- **Number and Quantity:** Fluently (consistently) multiply multi-digit whole numbers; extend the idea of place value to decimals; begin to divide using multi-digit divisors (fluency isn't expected until sixth grade); multiply fractions; add and subtract fractions by creating equivalent fractions ($1/2$ is the same as $2/4$); understand the relationship between fractions and division ($2/5$ means $2 \div 5$); solve simple word problems involving the division of fractions with pictures (the formal procedure for dividing fractions is taught in sixth grade).
- **Algebra and Function:** Write and interpret numerical expressions.
- **Data, Statistics, and Probability:** Convert within the metric system; find the volumes of rectangular prisms using multiplication.
- **Geometry:** Graph points on a grid using positive numbers.

Throughout 5th Grade You May Find Students:

- Exploring patterns (using a calculator) that occur when multiplying by powers of ten (10, 100, $1/10$, $1/100$).
- Making connections between whole numbers and decimals.
- Playing with money to explore how to add and subtract numbers involving decimals.
- Solving fair share problems (3 submarine sandwiches fairly shared among 4 people) to explore the relationship between fractions and division.
- Drawing pictures to solve simple word problems involving the division of fractions by whole numbers and whole numbers by fractions.
- Filling boxes with cubes to explore the concept of volume and its connection to area.
- Exploring how to find the volume of objects that can be broken into several rectangular boxes.
- Playing games involving coordinates-location on a grid ("Battleship").



The music standards in the elementary years focus on general music knowledge and skills to ensure a solid foundation for the opportunity for more specialized musical study in later years. In each elementary grade, students investigate and perform various music styles and genres, examine the language of music through identifying and writing simple music notation, consider simple musical composition processes, and develop the ability to describe their own musical preferences as well as critique the music of others.

Expectations for 5th Grade Students:

- **Expression of Music (Perform/Present):** Perform notated songs with accuracy and apply teacher, peer feedback and self-reflection to improve musical skills.
- **Creation of Music (Create):** Create melody and accompaniment.
- **Theory of Music (Know/Comprehend):** Identify and demonstrate complex notated patterns using advanced techniques.
- **Aesthetic Valuation of Music (Appreciate and Understand):** Compare music from various cultures and evaluate the quality of a performance.

Throughout 5th Grade You May Find Students:

- Singing and playing songs with accurate rhythm, technique, and timing.
- Modifying a song to fit a certain group of musicians.
- Creating and playing an original song.
- Writing or using music software programs to demonstrate an understanding of a simple piece of music.
- Connecting musical performances to certain cultures, histories, and/or geographic places.
- Evaluating performances using musical terms.



The physical education standards in the elementary years focus on enhancing movement concepts and skills, understanding basic health-related components and skill-related components of fitness and how it relates to personal fitness, demonstrating respect, and the ability to follow directions. In each grade, students demonstrate various movement concepts; assess personal behaviors; connect fitness development to body systems; demonstrate respect for self, others, and various physical activity environments; and utilize safety procedures during physical activities.

Expectations for 5th Grade Students:

- **Movement Competence and Understanding:** Demonstrate mature form for all basic locomotor (e.g., walking, running), non-locomotor (e.g., twisting, stretching), manipulative skills (e.g., catching, throwing, striking) and rhythmic skills (e.g., dancing, jumping rope); demonstrate understanding of how to combine and apply movement concepts and principles to learn and develop motor skills; understand why feedback can improve performance.
- **Physical and Personal Wellness:** Demonstrate understanding of skill-related components of fitness (agility, balance, coordination, power, reaction time, speed) and how they affect physical performance; set personal goals for improving health-related fitness.
- **Social and Emotional Wellness:** Identify personal activity interests and abilities and take responsibility for individual and team performance; work cooperatively and productively in a group.
- **Prevention and Risk Management:** Implement safety procedures in the utilization of space and equipment.

Throughout 5th Grade You May Find Students:

- Throwing and catching an object demonstrating both accuracy and force.
- Dribbling a ball (by hand or foot) while preventing another person from stealing the ball.
- Developing and refining a gymnastics or creative dance sequence, and demonstrating smooth transitions.
- Using basic understanding of the knowledge of strategies in activity settings such as moving to open space to receive a pass or intercepting an object.
- Analyzing and correcting errors in throwing, catching, dribbling with hands and feet, striking a ball, and volleying while demonstrating control and accuracy.
- Creating a plan using the six skill-related components to improve performance in a chosen activity.
- Identifying activities that will help to improve cardio-respiratory, muscular endurance, muscular strength, flexibility, and body composition.
- Accepting responsibility for one's own performance without blaming others.
- Demonstrating the ability to resolve conflicts with peers.
- Reviewing components of safe participation and what constitutes a safe environment.



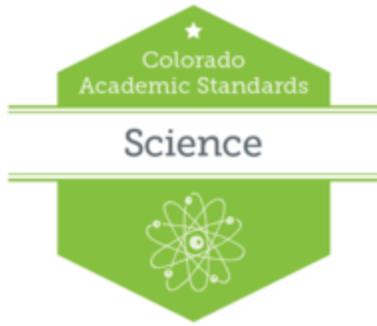
The reading, writing, and communicating standards in preschool are aligned to the expectations within Colorado’s Early Learning and Development Guidelines and the latest revision of the Head Start Early Learning Outcomes Framework. They outline development expectations and indicators of progress for preschool age students in receptive and expressive language; understanding and obtaining meaning from stories and information from books and other texts; phonological awareness; concepts of early decoding; names and sounds associated with alphabetic knowledge; emerging skills to communicate through written representations, symbols, and letters; and asking a question to identify and define a problem and its possible solution.

Expectations for 5th Grade Students:

- **Oral Expression and Listening:** Speak to an audience to express an opinion, to persuade, or to explain an idea/process; actively listen during a presentation using listening strategies (asking questions, paraphrasing, and displaying positive body posture).
- **Reading for All Purposes:** Read literary (stories and poems), informational, and persuasive texts in order to understand, interpret, and compare ideas from a variety of authors.
- **Writing and Composition:** Use a writing process – planning, drafting, revising, editing, sharing – to produce effective, unique, well-researched, and grammatically correct writing for different audiences and purposes (telling a story, explaining a topic, building an argument).
- **Research Inquiry and Design:** Gather and organize information from different sources and produce a well-organized, well-thought-out written or verbal presentation that answers a specific question.

Throughout 5th Grade You May Find Students:

- Reading stories and informational texts to gain new understandings of the world and its people; using different strategies to understand complex texts (generating questions, summarizing, marking the text); working individually and with others to deepen understanding on a topic or text; making connections within and between different texts.
- Writing about texts as they “think through” ideas; directly quoting from the sources to support explanations; sharing writing ideas with others; generating questions based on reading to do research; reflecting on reading.
- Exploring the decisions a writer makes; critiquing a writer’s reasoning; comparing different authors’ writings about the same topic; evaluating graphics in texts.
- Writing narratives (stories) to convey experiences in the world; conducting short research projects; using evidence from sources to produce logical and well-informed presentations; using a variety of sentence structures and effective organization; using grammar and punctuation with accuracy; using technology to produce writing.



Three-dimensional science standards in the elementary grades lay the foundation for students to work and think like scientists and engineers. We also see strong connections to skills students will use to be successful with reading, literacy, and mathematics. In elementary grades, we will explore disciplinary core ideas in physical, life, and Earth and space sciences via phenomena in the world around us. Learners in elementary grades develop and ask testable questions, collect, and analyze different types of evidence, and write and communicate our understanding. Mastery of these standards will result in young learners who have a deep understanding of how scientific knowledge can provide solutions to practical problems we see in our world.

Expectations for 5th Grade Students:

- **Physical Science:** Recognize that matter is made of particles that are too small to be seen; describe how new substances can be formed when chemical reactions occur, explain how Earth's gravitational force exerts force on objects.
- **Life Science:** Understand that plants acquire their material from growth chiefly from air and water, and that matter flows in cycles between air, soil, plants, animals, and microbes as these organisms live and die.
- **Earth and Space Science:** Understand that the Earth and sun provide many renewable and nonrenewable resources; recognize that Earth's surface changes constantly; understand how the uneven heating of Earth's surface (by the sun) affects weather.

Throughout 5th Grade You May Find Students:

- Conducting an investigation to determine whether the mixing of two or more substances results in new substances.
- Developing a model to describe the movement of matter among plants, animals, decomposers, and the environment.
- Developing models to describe the ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.
- Using data and graphs to describe the amounts and percentages of saltwater and freshwater in various reservoirs to provide evidence about the distribution of water on Earth.
- Obtaining information about ways individual communities use science ideas to protect the Earth's resources and environment.



The social studies standards in the elementary years begin with individuals and families and move from there to explorations of neighborhoods, communities, the state of Colorado, and the United States. In each grade, students investigate historical events, examine geographic features and resources, consider economic decision-making processes, and define civic roles and responsibilities.

Expectations for 5th Grade Students:

- **History:** Use timelines, artifacts, and documents to understand the different people, diverse (cultural) perspectives, and important events that shaped the early history of the United States (exploration through the American Revolution).
- **Geography:** Use different kinds of maps, globes, graphs, and diagrams to ask and answer questions about the geography of the 13 Colonies and the United States.
- **Economics:** Explain how trade shaped the development of early America; understand how government actions connect with the economy (interest rates) at the local, state, and national level. **Personal Financial Literacy:** Identify different financial institutions (banks, credit unions) and the services they provide.
- **Civics:** Explain the foundations and structure (the Executive, Judicial, and Legislative branches) of the United States government; describe the rights and responsibilities of U.S. citizenship.

Throughout 5th Grade You May Find Students:

- Analyzing primary and secondary sources such as artifacts, documents, photos, and newspaper articles to examine and explain U.S. historical events; identifying multiple perspectives and diverse cultural groups that were important to events in early United States history; exploring the events that led up to the American Revolution and the lives of the people involved.
- Using map keys, symbols, and legends to locate and identify the types of natural resources found in the United States; describing the role that resources played in the development of the 13 Colonies and the United States.
- Defining the basic parts of the United States' capitalist economy; examining why people need banks and other financial institutions; identifying the products and services provided by financial institutions (banks, credit unions), such as checking and savings accounts and loans.
- Identifying and explaining the principles of democracy and how founding documents (Declaration of Independence, the Constitution, Bill of Rights) reflect and preserve these principles; engaging in discussions about the rights and responsibilities of citizenship.



The visual arts standards in preschool focus on experiences and exploration in art-making and with art materials. This helps to develop a foundation and appreciation for visual art. In preschool, students identify art in their daily surroundings, experience that art can be used to represent stories and ideas, explore various art-making processes, and begin to see how art is a part of their community.

Expectations for 5th Grade Students:

- **Observe and Learn to Comprehend (Know/Comprehend):** Talk about how artists use art techniques (ideas, expression, composition) to give artwork meaning; explain why artists make art; consider and explain how artistic decisions are portrayed in works of art.
- **Envision and Critique to Reflect (Critique/Evaluate/Refine):** Use proper art terms to talk about art; create plans to document the use of personal ideas/experiences will be used to create an artwork.
- **Invent and Discover to Create (Create/Present):** Create art to show feelings and/or convey personal perceptions of the world; make artwork plans based on knowledge of materials and techniques.
- **Relate and Connect to Transfer (Connect/Apply/Transfer):** Help viewers understand ideas conveyed in personal artworks from diverse cultures.

Throughout 5th Grade You May Find Students:

- "Reading" an artwork through observing the use of color, texture, shading, symbols and discussing the artist's intentions; researching and explaining how a specific piece of artwork describes people's experiences or a particular event.
- Explaining how people judge a piece of artwork (personal likes, dislikes, preferences); describing how people respond differently to art from familiar and unfamiliar cultures.
- Using planning tools to research and develop ideas for personal artwork.
- Exploring ways to use art materials to convey a personal feeling or idea or to create an artwork that represents the ideas of others.
- Using available technology resources to create artwork.



The world language standards are organized in language proficiency range levels. Language proficiency refers to the degree of skill with which a person can use a language to understand, speak, read, write, and listen in real-life situations. Colorado's standards provide guidance for the introduction of a new language (novice-low) through the minimum proficiency range deemed postsecondary and workforce ready (advanced-low).

The world languages standards in the elementary years create a roadmap to guide K-5 students in the process of learning a new language and understanding diverse cultural perspectives, as well as developing insights into their own language and culture at the appropriate developmental stage. The standards reflect a performance-based discipline which emphasizes communication skills (interpersonal speaking and writing; interpretive reading, listening, and viewing and presentational speaking and writing) in a new language to navigate real-life situations. Students use the newly acquired language while making connections with other academic disciplines, comparing both the nature of language and the nature of culture with their own language and the one being learned and with investigation and interaction of cultural practices and products in order to better understand multiple perspectives. These standards prepare students to participate more fully in the interconnected global community and the international marketplace.

Why are world language standards organized in language proficiency range levels? Language proficiency refers to the degree of skill with which a person can use a language to understand, speak, read, write, and listen in real-life situations. Colorado's standards provide guidance for the introduction of a new language (novice-low) through the minimum proficiency range deemed postsecondary and workforce ready (advanced-low). Progression through levels of proficiency is influenced by program design such as grade levels, competency-based programs, time for language instruction, and immersion programs. Language programs in many schools districts have multiple entry points. Both the length and the type of program design impact both language acquisition and proficiency level for students.

To view the expectations for elementary students at the various proficiency ranges, go to:
<http://www.cde.state.co.us/standardsandinstruction/2020cas-wl-es-guides>